

WE CLAIM:

- Sub a1*
1. A multi-purpose remote office machine management system, comprising:
a microprocessor including memory operatively associated therewith;
receiving means coupled to said microprocessor for receiving signals indicative
5 of a condition to be reported;
calendar clock means coupled to said microprocessor for supplying time
signals indicative of date and time of day thereto;
signal generating means coupled to said microprocessor for generating signals
at a predetermined time for initiating a call to a host computer and for transmitting
10 data thereto corresponding to said signals indicative of said condition to be reported;
and
controlling means coupled to said microprocessor for altering a mode of
operation for said system via commands from said host computer.
- Sub B22*
- 15 2. The system according to Claim 1 further including a serial interface
means adapted for transferring said data to said host computer.
3. The system according to Claim 1 wherein said receiving means includes
a serial interface means.
4. The system according to Claim 1 further including a radio frequency
interface means adapted for transferring said data to said host computer.
- 20 5. The system according to Claim 1 wherein said receiving means includes
a radio frequency interface means.

6. The system according to Claim 1 further including a shared telephone line interface means adapted for transferring said data to said host computer.

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5 7. The system according to Claim 1 further including a dedicated telephone line interface means adapted for transferring said data to said host computer.

8. The system according to Claim 1 wherein said means for receiving signals includes means adapted for receiving signals indicative of a number of copies produced by at least one photocopier machine.

Sub a2
10 9. The system according to Claim 6 further comprising means adapted to preestablish limits associated with at least one individual user to control access to said at least one photocopier machine when said limits are reached.

10. The system according to Claim 6 further comprising means adapted to preestablish limits associated with at least one group of individuals to control access to said at least one photocopier machine when said limits are reached.

Sub 1534
11. The system according to Claim 1 wherein said means for receiving signals includes means adapted for receiving signals from said host computer to enable and disable at least one photocopier machine.

12. The system according to Claim 1 wherein said means for receiving signals includes means adapted for receiving signals indicative of attempts by
20 unauthorized individuals to access at least one photocopier machine.

13. The system according to Claim 1 wherein said means for receiving signals includes means adapted for receiving signals indicative of a number of primary and secondary copies produced by at least one duplicator.

5 14. The system according to Claim 1 wherein said means for receiving signals includes means adapted for receiving signals indicative of a number of black and white and color copies produced by at least one photocopy machine.

15. The system according to Claim 1 wherein said means for receiving signals includes means adapted for receiving signals indicative of a number of paper jams for at least one photocopy machine.

10 16. The system according to any one of Claims 2, 3, 4 and 5 further comprising means coupled to said microprocessor for on-site entry of service data, wherein said service data is conveyed to said host computer via said interface means.

17. The system according to Claim 1 further comprising means coupled to said microprocessor for providing access control to at least one office machine.

15 18. The system according to Claim 1 wherein said means for receiving signals includes means adapted for receiving alarm signals indicative of an emergency condition to be reported, and wherein said means adapted for receiving alarm signals is operable when an alarm signal is received for initiating a call to said host computer.

20 19. The system according to Claim 1 wherein said means for generating signals comprises a tone generator.

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20. The system according to Claim 1 wherein said means for generating signals comprises a pulse train generator.

21. The system according to Claim 1 further comprising means coupled to said microprocessor for receiving and testing receipt of an acknowledgement signal
5 from said host computer prior to transmitting said data.

Sub A3
22. The system according to Claim 1 wherein said means for receiving signals comprises a plurality of optically isolated input means, wherein said plurality of input means includes means adapted for receiving electrical signals representative of contact closure, pulse counts, and combinations of contact closure and pulse count
10 signals thereof.

Sub B6
23. The system according to Claim 1 wherein said microprocessor includes means for transmitting signals to said host computer, wherein said signals are indicative of a location of a photocopy machine coupled to said system.

24. The system according to Claim 1 wherein said transmitting means is
15 adapted to communicate with said host computer via a shared telephone line.

25. The system according to Claim 1 wherein said transmitting means is adapted to communicate with said host computer via a dedicated telephone line.

26. The system according to Claim 16 wherein said data entry means comprises keypad means coupled to said microprocessor for data entry thereto, and
20 wherein said system further includes means for initiating a call to said host computer for establishing communication between said keypad and said host computer.

27. The system according to Claim 16 wherein said means for on-site entry of service data, includes means adapted for entry of data indicative of service requests and service activity, and wherein said means for initiating calls at a predetermined time to said host computer for each said at least one office machine is adapted for conveying said data indicative of service requests and service activity via said transmitting means.

28. The system according to any one of Claims 9, 10 and 17 wherein said means for access control, includes means adapted for on-site entry of alphanumeric data.

29. The system according to any one of Claims 9, 10 and 17 wherein said means for access control, includes means adapted for on-site entry of numeric data.

30. The system according to Claim 28 wherein said means for on-site entry of alphanumeric data, includes means adapted for entry of a user identification code.

31. The system according to Claim 30 wherein said means adapted for entry of a user identification code includes a keypad means coupled to said microprocessor for data entry thereto, and wherein said means for initiating a call to said host computer is adapted for establishing communication between said keypad means and said host computer.

32. The system according to Claim 29 wherein said means for on-site entry of numeric data, includes means adapted for entry of a user identification code.

33. The system according to Claim 32 wherein said means for entry of a user identification code includes a keypad means coupled to said microprocessor for

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data entry thereto, and wherein said means for initiating a call to said host computer is adapted for establishing communication between said keypad means and said host computer.

5 34. A system for monitoring and controlling a plurality of office machines via a communication network, comprising:

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a plurality of office machine control and monitoring devices of the type having at least one microprocessor including memory operatively associated therewith;

means coupled to said at least one microprocessor for receiving signals indicative of a condition to be reported;

10 calendar clock means coupled to said at least one microprocessor for supplying time signals indicative of date and time of day thereto;

means coupled to said at least one microprocessor for generating signals at a predetermined time for initiating a call to a host computer and for transmitting data thereto corresponding to said signals indicative of said condition to be reported; and

15 means coupled to said at least one microprocessor for altering a mode of operation for at least one device within said plurality of devices within said system via commands from said host computer.

35. The system according to Claim 34 wherein said receiving means includes at least one serial communication interface means.

20 36. The system according to Claim 34 wherein said receiving means includes a radio frequency communication interface means.

37. The system according to Claim 34 wherein said communication network includes at least one shared telephone line.

38. The system according to Claim 34 wherein said communication network includes at least one dedicated telephone line.

39. The system according to Claim 34 wherein said communication network includes at least one serial communication interface means.

5 40. The system according to Claim 34 wherein said communication network includes a radio frequency communication interface means.

41. The system according to Claim 34 further comprising means coupled to each device within said plurality of devices for on-site entry of service data, wherein said service data is conveyed to said host computer via said communication network.

10 42. The system according to Claim 34 further comprising means coupled to each device within said plurality of devices for providing access control to each office machine within said plurality of office machines.

43. The system according to Claim 34 wherein at least one office machine within said plurality of office machines is a photocopy machine.

15 44. The system according to Claim 34 wherein at least one office machine within said plurality of office machines is a fax machine.

45. The system according to Claim 34 wherein at least one office machine within said plurality of office machines is a printer.

20 46. The system according to Claim 34 wherein at least one office machine within said plurality of office machines is a document scanner.

47. The system according to Claim 34 wherein at least one office machine within said plurality of office machines is a personal computer.